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Alberta Louise Perry v. Jenkins & Stiles, LLC.

Preliminary Report

Robert Bullen, P.E., J.D.

Prepared For:
Matthew E. Wright
The Law Firm for Truck Safety, LLP
February 13, 2023

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Overview and Executive Summary

My name is Robert Bullen, and I have been engaged to evaluate the facts and circumstances surrounding the death of Vincent McKinney. Attached is a copy of my most recent CV (Exhibit 1) which includes a list of all publications authored in the previous ten years; and testimony list (Exhibit 2) which includes all other cases for the last 4 years in which I testified as an expert at trial or by deposition. My compensation is by salary, and the charge rates for my services are included on the attached Engineering Services Agreement (Exhibit 3), and are as follows: Consultation, site investigation, analysis, report - $275/hour; Deposition and Trial - $350/hour; Travel $210/hour. In addition to the photographs, videos, and materials provided to me in discovery, I intend to use an exemplar forklift, the flatbed trailer and truck, and scale reconstruction of the cargo to demonstrate to the jurors the view that Mr. Kennedy had while approaching the trailer, and the manner in which he likely engaged the forks underneath the cargo bundles. I may also present this by video.

Jenkins & Stiles, LLC ("Jenkins & Stiles") is a general contractor hired to construct the Karns U-Haul building located at 7640 Oak Ridge Highway, Knoxville, TN. Jenkins & Stiles appointed employees Josh Sullins ("Sullins") as Project Manager and Curtis Kennedy ("Kennedy") as the job site superintendent. Kennedy was responsible for the oversight of construction operations at the job site.

Part of the construction job included the installation of insulated metal panels on the building structure. Jenkins & Stiles purchased these panels from MCBI, and they were manufactured by Nucor Insulated Panel. These panels were to be installed by BETCO (or persons hired by BETCO) who was a subcontractor to Jenkins & Stiles.

Kennedy testified that the subcontractor would normally offload the materials when they arrived at the job site. However, on this job, Kennedy received a call to confirm the delivery of the materials, and Kennedy accepted the delivery because he had experience operating forklifts and wanted to ensure that there were no delivery delays that might affect the progress of the installation of the panels.

After having performed repairs on the trailer after a Tennessee DOT inspection, on or about April 15, 2021, Mr. Vincent McKinney ("McKinney"), a truck driver, was delivering a load of materials to the job site. The load consisted of five bundles of insulated steel panels with trim and accessories packaged in separate wooden crates. McKinney arrived at the job site and was directed where to park his truck for unloading by Kennedy. McKinney parked the truck and trailer as directed and released the straps securing the load. Kennedy instructed McKinney to "finish getting the straps out of the way" while Kennedy was performing the daily inspection of the forklift, and then he would

begin unloading the smaller wooden crates. Kennedy used the subject JLG telehandler to remove the wooden crates from the rear of the trailer and placed them in the laydown area.

Kennedy then approached the passenger side if the trailer to begin unloading the large bundles of panels from the trailer. As Kennedy began to lift the panels from the passenger side of the trailer, the two bundles on the driver's side of the trailer suddenly fell, striking McKinney, pinning him to the ground causing fatal injuries.

Based on my review of the case materials, the bundles falling was caused by Jenkins & Stiles' failure to use spotters and follow safe operating procedures during the unloading of the trailer. The event was also caused by Jenkins & Stiles' failure to ensure that pedestrians were not in the fall zone prior to attempting to lift the panels from the trailer. Additionally, Jenkins & Stiles' failure to provide site specific training on how to offload these materials under the circumstances and the failure to follow Nucor's recommended procedures for loading and unloading the bundles of panels contributed to the event which fatally injured McKinney. These conclusions are discussed in greater detail in this report below.

The methodology I have employed in reaching the conclusions and opinions documented in this report is the same as I use to analyze engineering issues. I follow a procedure that is of the kind that is usually and customarily followed by engineers who are called upon to investigate and answer questions related to the circumstances involved. The analytical procedures are the same as I have used in industry when evaluating product/use and/or situations involving products.

Background

Description of Equipment

The machine used by Kennedy was a JLG model 943 telehandler, serial number 0160089165, manufactured in 2018. Telehandlers are also known as rough terrain forklifts, and are widely used in the construction industry due to their ability to be used in varying conditions and their overall versatility. According to the manufacturer's data sheet, the machine has the following specifications:

- Travel Speed: 0 – 19 miles per hour
- Transmission: Powershift 4-speed forward and 3-speed reverse.
- Steering: Power steering with manual backup. Operator selectable 4-wheel circle, 4-wheel crab, 2-wheel front.
- Engine: Cummins QSF3.8L Tier 4, 4 cylinder diesel
- Power: 110 horsepower
- Electrical System: 12 volts
- Rated Capacity 9,000 pounds
- Maximum lift height 43 feet

The JLG 943 Telehandler is a four-wheel drive rough terrain forklift with extendable boom, designed to lift and transport materials on a variety of terrains. It is equipped with a semi-enclosed operator's cab with operational controls. It is a four-wheel drive system with limited slip axles and variable speed control. The end of the boom is designed to accommodate a variety of attachments including standard or side shifting carriages with forks, work platforms, buckets and lifting hooks. At the time of the accident, the subject machine was equipped with a fixed carriage and (approximately) 72 inch long forks (the actual measurement at inspection was closer to 71").

The subject machine is shown in Figures 1 – 3 below.

Figure 1: Subject Telehandler at Construction Site

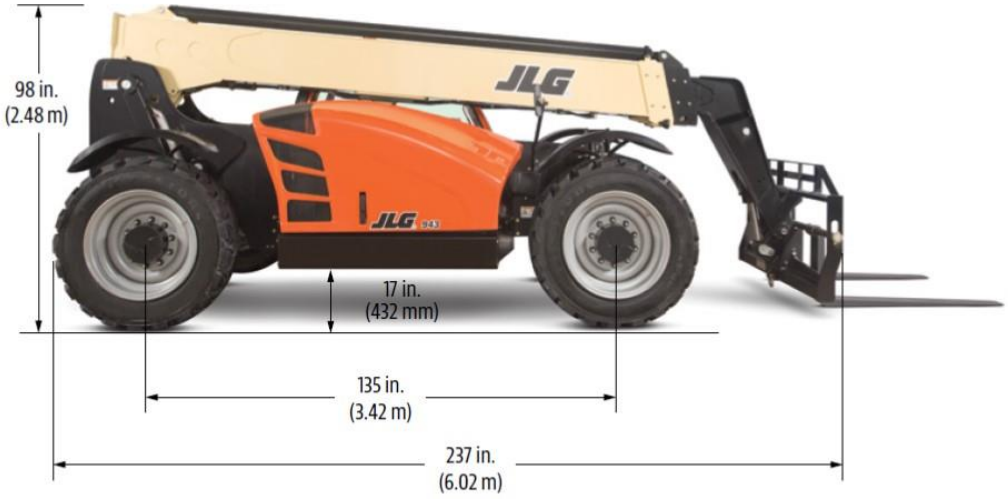

Figure 2: Side View - Manufacturer's Literature

Figure 3: Front View – Manufacturer's Literature

McKinney transported the load on a gooseneck style trailer towed by a Ford F-350 Super Duty pickup truck. A photograph of his truck with the load that he was transporting is shown below in Figure 4.

Figure 4: Mr. McKinney's Truck and Trailer with Load at Shipper

Description of the Event

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Examination of Physical Evidence

The subject truck and trailer were inspected by Robert Bullen in Douglasville, GA on October 19, 2022. Mr. Bullen also inspected the site of the event in Knoxville, TN on October 19, 2022. The subject forklift was inspected by Robert Bullen in Knoxville, TN on October 20, 2022.

Engineering Analysis

The subject event occurred at 7640 Oak Ridge Highway, Knoxville, TN which was an active construction site for a U-Haul facility. McKinney was a driver contracted to deliver insulated steel panels and associated hardware that was to be used in the construction. McKinney was not an employee of Jenkins & Stiles, and there was no special business relation that would cause Jenkins & Stiles nor any of their employees to have specific knowledge about McKinney, his experience or training.

Kennedy was the job site superintendent for the subject construction site, and his responsibilities included "being the main safety officer on site."[1] When asked, Kennedy testified that he did not know anything about Mr. McKinney.[2] This would indicate that Kennedy did not have knowledge of any training, experience or particular skills that Mr. McKinney may have had.

According to Kennedy's testimony, after McKinney arrived at the site, Kennedy directed him to move his truck to the opposite end of the building to be unloaded.[3] Kennedy instructed Mr. McKinney to unstrap the load, and to "finish getting the straps out of the way,"[4] and told him that he was going to get on the lift and unload the trailer beginning with the wooden crates that were on the rear of the trailer.[5] Prior to the event, Kennedy had unloaded the wooden crates and placed them in the laydown area between the building and adjacent road. Kennedy then approached the trailer to unload the bundles of panels from the passenger (right) side of the trailer.[6] The trailer was loaded with five bundles of panels, two bundles were stacked on the driver's (left) side of the trailer, and three bundles were stacked on the passenger's (right) side of the trailer as shown in

[1] Deposition of Curtis Kennedy, p.14.
[2] Deposition of Curtis Kennedy, p.36.
[3] Deposition of Curtis Kennedy, p. 55.
[4] Deposition of Curtis Kennedy, pp. 55-56.
[5] Deposition of Curtis Kennedy, pp. 55, 57.
[6] Deposition of Curtis Kennedy, p. 54.

Figure 4 above. At the time the bundles fell onto McKinney, Kennedy was attempting to lift all three of the bundles from the right side of the trailer at one time.[7]

The operation of equipment such as the forklift that Kennedy was operating requires specialized training which is addressed by multiple standards and regulations. These standards must be considered in analyzing the actions that contributed to cause the fatal injury of McKinney. The most specific document is the manufacturer's documentation for the specific machine. Relevant portions of the JLG Operation and Safety manual for the subject 943 telehandler are as follows:

> ***Read This First***
>
> *This manual is a very important tool! Keep it with the machine at all times.*
>
> *The purpose of this manual is to provide owners, users, operators, lessors, and lessees with the precautions and operating procedures essential for the safe and proper machine operation for its intended purpose.*
>
> *Due to continuous product improvements, JLG Industries, Inc. reserves the right to make specification changes without prior notification. Contact JLG Industries, Inc. for updated information.*
>
> ***Operator Qualifications***
>
> *The operator of the machine must not operate the machine until this manual has been read, training is accomplished and operation of the machine has been completed under the supervision of an experienced and qualified operator. Operation within the U.S.A. requires training per OSHA 1910.178.*
>
> *Operators of this equipment must possess a valid, applicable driver's license, be in good physical and mental condition, have normal reflexes and reaction time, good vision and depth perception and normal hearing. Operator must not be using medication which could impair abilities nor be under the influence of alcohol or any other intoxicant during the work shift.*
>
> *In addition, the operator must read, understand and comply with instructions contained in the following material furnished with the material handler:*
>
> • *This Operation & Safety Manual*
>
> • *Telehandler Safety Manual (ANSI only)*
>
> • *All instructional decals and plates*

[7] Deposition of Curtis Kennedy, p. 54.

• Any optional equipment instructions furnished

The operator must also read, understand and comply with all applicable Employer, Industry and Governmental rules, standards and regulations.

SECTION 1 - GENERAL SAFETY PRACTICES

1.1 HAZARD CLASSIFICATION SYSTEM

Safety Alert System and Safety Signal Words

Travel Hazard

- *Look out for and avoid other personnel, machinery and vehicles in the area. Use a spotter if you DO NOT have a clear view.*
- *Before moving be sure of a clear path and sound horn.*
- *When driving, retract boom and keep boom/attachment as low as possible while maintaining visibility of mirrors and maximum visibility of path of travel.*
- *Keep others away while operating.*

SECTION 4 – OPERATION

4.3 OPERATING WITH A NON-SUSPENDED LOAD

Lift Load Safely

• You must know weight and load center of every load you lift. If you are not sure of weight and load center, check with your supervisor or with supplier of the material.

• Know rated load capacities (refer to Section 5) of telehandler to determine operating range in which you can safely lift, transport and place a load.

Picking Up a Load

• Note conditions of the terrain. Adjust travel speed and reduce amount of load if conditions warrant.

• Avoid lifting double-tiered loads.

• Make sure load is clear of any adjacent obstacles.

• Adjust spacing of forks so they engage the pallet or load at maximum width. See "Adjusting/Moving Forks" on page 5-19.

• Approach load slowly and squarely with fork tips straight and level. NEVER attempt to lift a load with just one fork.

• NEVER operate telehandler without a proper and legible capacity chart in operator cab for telehandler/attachment combination you are using.

The manual refers to employer, industry and governmental rules, standards and regulations, including the training requirements of OSHA 1910.178 which includes the following:

1910.178(I)(1)

Safe Operation

1910.178(I)(1)(i)

The employer shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in this paragraph (I).

1910.178(I)(2)(ii)

Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

1910.178(I)(3)

Training Program Content. Powered industrial truck operators shall receive initial training in the following topics, except in topics which the employer can demonstrate are not applicable to safe operation of the truck in the employer's workplace.

1910.178(l)(3)(i)

Truck-related topics:

1910.178(l)(3)(i)(E)

Steering and maneuvering;

1910.178(l)(3)(i)(F)

Visibility (including restrictions due to loading);

1910.178(I)(3)(ii)

Workplace-related topics:

1910.178(I)(3)(ii)(A)

Surface conditions where the vehicle will be operated;

1910.178(I)(3)(ii)(D)

Pedestrian traffic in areas where the vehicle will be operated;

1910.178(I)(3)(ii)(E)

Narrow aisles and other restricted places where the vehicle will be operated;

1910.178(I)(4)(iii)

An evaluation of each powered industrial truck operator's performance shall be conducted at least once every three years.

The above noted OSHA regulations apply to all powered industrial trucks. The subject telehandler is classified as a rough terrain forklift which is specifically addressed by the American National Standards Institute/International Truck Standards Development Foundation (ANSI/ITSDF) standard *ANSI/ITSDF B56.6-2016, SAFETY STANDARD FOR ROUGH TERRAIN FORKLIFT TRUCKS*. This standard imposes specific requirements on the users of forklifts and recognizes that operator ability and care play a large role in the safety of the machines covered by this document. Relevant portions of this document are listed below:

Part I Introduction

1 SCOPE

This Standard defines the safety requirements relating to the elements of design, operation, and maintenance of rough terrain forklift trucks. These trucks are intended for operation on unimproved natural terrain as well as the disturbed terrain of construction sites.

2 DEFINITION

A rough terrain forklift truck is defined as a wheeled-type truck designed primarily as a fork truck with a vertical mast and/or a pivoted boom, variable reach or of fixed length, which may be equipped with attachments. This truck is intended for operation on unimproved natural terrain as well as the disturbed terrain of construction sites. This definition excludes machines designed primarily for earth moving, such as loaders and dozers, even though their buckets and blades are replaced with forks, and machines designed primarily as over-the-road trucks equipped with lifting devices.

3 PURPOSE

The purpose of this Standard is to promote safety through the design, construction, application, operation, and maintenance of rough terrain forklift trucks. This Standard may be used as a guide by governmental authorities desiring to formulate safety rules and regulations. This Standard is also intended for voluntary use by others associated with manufacture or utilizing rough terrain forklift trucks.

5. GENERAL SAFETY PRACTICES

5.1 Introduction

5.1.1 *Rough terrain forklift trucks can cause injury if improperly used or maintained.*

5.1.2 *Part II contains broad safety standards applicable to rough terrain forklift truck operations. Only authorized operators trained to adhere strictly to the operating instructions stated in Section 6 shall be permitted to operate rough terrain forklift trucks. Unusual operating conditions may require additional safety precautions and special operating instructions.*

5.2.5 *The user shall consider that changes in load dimension may affect rough terrain forklift truck capacity.*

5.4.2 *Load Backrest Extension. A load backrest extension shall be used when necessary to guard against a load, or part of it, falling toward the operator.*

5.10 Sound Level

Rough terrain forklift trucks can contribute to the ambient sound level in the work area. Consideration should be given to the sound exposure of personnel in the work area.

5.16 Operator Qualifications

5.16.1 *Only trained and authorized persons shall be permitted to operate a rough terrain forklift truck. Operators of rough terrain forklift trucks shall be qualified as to visual, auditory, physical, and mental ability to operate the equipment safely according to para. 5.17 and all other applicable parts of Section 5.*

5.17 Operator Training

5.17.1 *The user shall ensure that operators understand that the safe operation is the operator's responsibility. The user shall ensure that operators are knowledgeable of, and observe, the safety rules and practices in paras. 6.1, 6.2, 6.3, 6.4 and 6.5.*

5.17.2 *An effective operator training program should center around user company's policies, operating conditions, and rough terrain forklift trucks. The program should be presented completely to all new conditions, and rough terrain forklift trucks. The program should be presented completely to all new operators and not be condensed for those claiming previous experience.*

5.17.4 *An operator training program should consist of:*

(a) careful selection of the operator, considering physical qualifications, job attitude, and aptitude;

(b) emphasis on safety of stock, equipment, operator, and other personnel;

(c) citing of rules and why they were formulated;

(d) basic fundamentals of rough terrain forklift truck and component design as related to safety, e.g., in·lbf (N·m) loading, mechanical limitations, center of gravity, stability, etc.;

(e) introduction to equipment, control locations, and functions. Explain how they work when used properly and problems when used improperly.

(f) supervised practice on operating course remote from normal activity and designed to simulate actual operations, e.g., lumber stacking, elevating shingles to the roof, etc.;

(g) oral, written, and operational performance tests and evaluations during and at completion of the course;

(h) refresher courses, which may be condensed versions of the primary course, and periodic, "on job" operator evaluation;

(i) understanding of nameplate data and operator instructions and warning information appearing on the rough terrain forklift truck.

6 OPERATING SAFETY RULES AND PRACTICES

6.1 Operator Responsibility

6.1.1 *Safe operation is the responsibility of the operator.*

6.1.2 *The equipment can be dangerous if not used properly. The operator shall develop safe working habits and also be aware of hazardous conditions in order to protect himself, other personnel, the rough terrain forklift truck, and other material.*

6.2.12 *Understand the rough terrain forklift truck limitations and operate the rough terrain forklift truck in a safe manner so as not to cause injury to personnel. Safeguard personnel at all times and:*

(a) never drive a rough terrain forklift truck up to anyone who is not aware of your presence, who is in your path of travel, or who is standing in front of an object.

(b) ensure that personnel stand clear of the front and rear swing areas before and when maneuvering the rough terrain forklift truck.

(c) exercise particular care where personnel may step into the path of travel of the rough terrain forklift truck.

6.3 Traveling

6.3.4 *Yield the right of way to pedestrians and emergency vehicles such as ambulances and fire trucks.*

6.4 Loading

6.4.3 *Handle only stable or safely arranged loads.*

(a) When handling off-center loads that cannot be centered, operate with extra caution.

(b) Handle only loads within the capacity of the rough terrain forklift truck.

(c) Handle loads exceeding the dimensions used to establish rough terrain forklift truck capacity with extra caution. Stability and maneuverability may be adversely affected.

6.4.5 *Completely engage the load with the load-engaging means. Fork length should be at least two-thirds of load length. Where tilt is provided, carefully tilt the load backward to stabilize the load. Caution should be used in tilting backward with high or segmented loads (see paras. 5.3.3 and 6.4.6).*

Kennedy stated that as he approached the load, he saw McKinney standing by the rear fender of his truck.[8] Kennedy was approaching the middle of the load on the right (passenger) side of the trailer, and McKinney was standing at the rear fender of his truck, on the left (driver) side. Kennedy claims that he saw McKinney, and they "did communicate. [They] made eye contact, and I don't know what was said, but I could see him, you know, and hear him telling me and affirming that -- to move forward, to go forward."[9] Considering the load that was on the trailer, the position of the telehandler, and the location where McKinney was, Kennedy's view would have been significantly impeded by the trailer, the bundles, the gooseneck, and the truck, as shown in Figures 5 – 11 below where the bright green color represents where McKinney was based on Kennedy' testimony. Figure 12 also shows that the straps were still on the ground and the strap winding tool is on the side of the trailer at the time of the event. This indicates that McKinney had not completed his winding of the straps prior to Kennedy attempting to unload the trailer, and the bundles falling on McKinney fatally injuring him.

[8] Deposition of Curtis Kennedy, p. 54.

[9] Deposition of Curtis Kennedy, pp. 54-55.

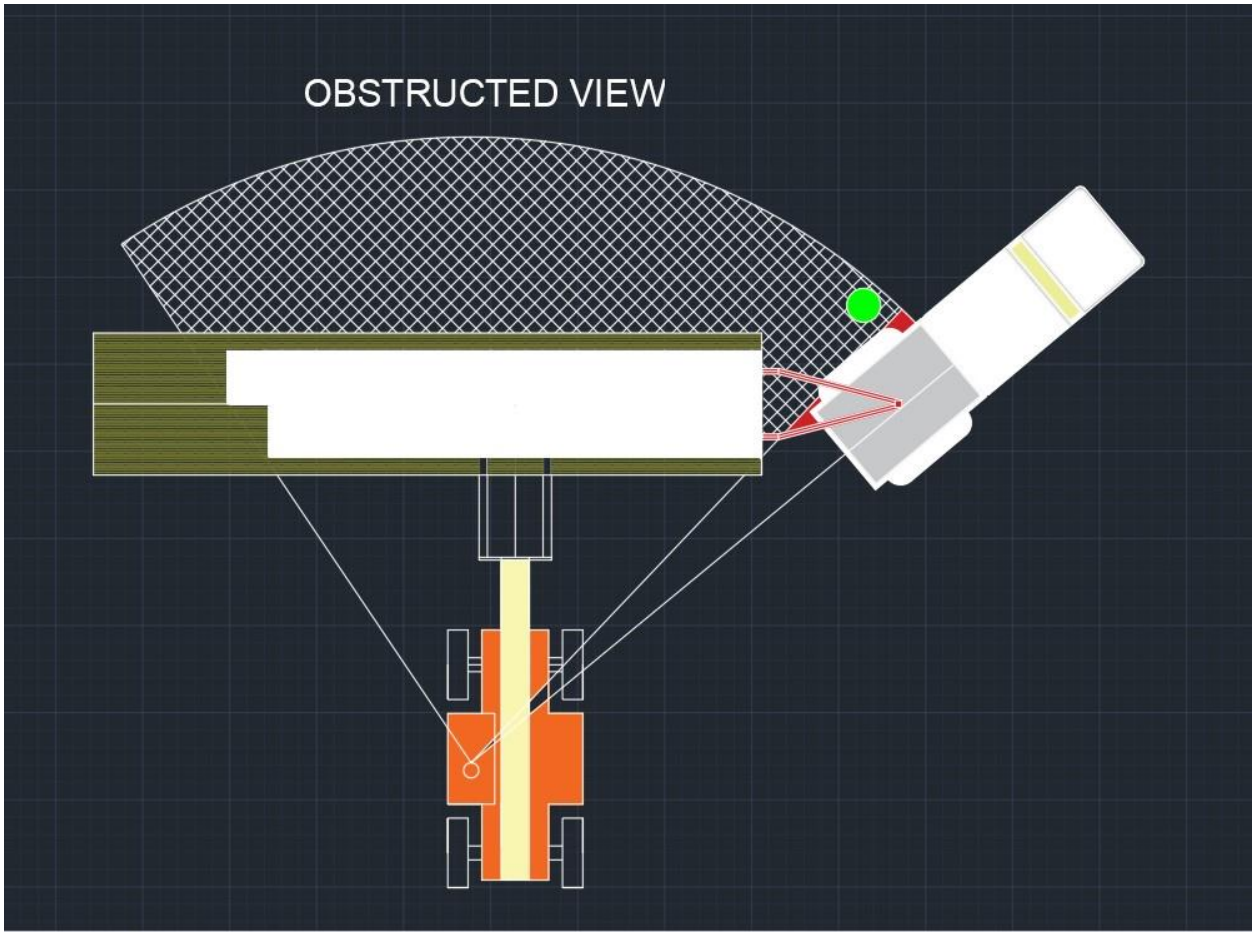

Figure 5: CAD Illustration Overhead View

Figure 6: CAD Illustration – Ground Level View

The CAD illustrations above show how the bundle of panels, the truck and the trailer would block the view of an object on the far side of the truck where Kennedy states that McKinney was standing. The green circle in Figure 5 represents McKinney's location, and the green showing in Figure 6 represents the portion of a six-foot-tall man (McKinney was five feet – eleven inches tall plus the approximate height of footwear) that would be visible from the right side of the trailer where Kennedy was operating the forklift. This can be further illustrated using photographs from the initial investigation of the scene as shown in Figures 7 to 9 below. Figure 7 is a photograph

taken from the right side of the truck and trailer after the event. Figure 8 is the same photograph with a representative illustration of the bundles which were on the trailer.

Figure 7: View from Right Side of Truck/Trailer

Figure 8: View from Right Side with Simulated Panels

Finally, Figure 9 shows the view from the left side of the truck and trailer illustrating how an object as large as the forklift on the opposite side is essentially hidden from view by the truck and trailer. Furthermore, these images are taken with a wide-open field of view, as opposed to the viewpoint from the operator's seat of the subject forklift. As indicated in the J.J. Keller training materials for training rough terrain forklift operators, "the boom and load can make it difficult to see the area 180 in front of the forklift."[10] Figures 10 and 11 below illustrate the obstructions that further hinder an operators view as referenced by the training materials. Exemplars of the packages on Mr. McKinney's trailer have been fabricated to for demonstrative use with and exemplar forklift and the subject truck – trailer combination to demonstrate operator field of view.

Figure 9: View from Left Side of Truck/Trailer

[10] Forklift Workshop for Construction, Trainer's Guide, J.J. Keller & Associates, p. 16.

Figure 10: View from Front of Subject Forklift

Figure 11: Boom Position Relative to Operator for the Subject Forklift

Figure 12: Photograph Showing Straps and Winding Tool

Even if Kennedy could see McKinney through all of the obstructions that were present, it is highly unlikely that his view would have allowed him to have any reasonable visual communication. As shown in the training materials, operators often rely upon approved hand signals for communication with their spotters.[11] This limited visibility would have significantly impeded if not totally prevented effective communication by such hand signals.

Kennedy says that he relied upon McKinney to act as a spotter for the unloading process.[12] According to training materials, "[a] forklift spotter acts as a second pair of eyes and ears for the driver. The spotter stands near the forklift and feeds information to the driver. That way, forklift spotting ensures that the driver can receive information about things they are unable to see or hear."[13] The spotter is responsible for watching out for and identifying potential hazards, communicating with the operator, and directing the operator to safely avoid the hazards. Additionally, spotters ensure that the operator has properly engaged the load and direct them through maneuvers in a safe manner. In order for an individual to effectively function as a spotter, they must be able clearly see the operation of the forklift and be in constant communication with the operator. Most often this requires continuous visual contact, although radio communication is sometimes used.

In order to have effective communication, the operator and spotter must not only be able to see each other, but they must be able to communicate and understand each other. This is why effective use of spotters requires that the operator and spotter agree on the means of communication. Kennedy testified that he did not have any specific communication with McKinney regarding McKinney acting as a spotter, or the method of communication that he intended to use.[14] Furthermore, as previously noted, Kennedy had no knowledge of McKinney's training or ability to identify hazards and act as a spotter.

McKinney could not have been an acceptable spotter for Kennedy for another reason. Kennedy testified that he knew that he would lose sight of McKinney as he approached the load.[15] If Kennedy could not see McKinney, and there was no other mutually agreed upon means of communication, then it would not be reasonable to assume that McKinney would be acting as

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[11] Forklift Workshop for Construction, Trainer's Guide, J.J. Keller & Associates, p. 16.

[12] Deposition of Curtis Kennedy, p. 76; Deposition of Josh Sullins, p.82.

[13] Certifyme.net - What is a Spotter? Posted by admin on April 15, 2022.

[14] Deposition of Curtis Kennedy, pp. 79-80; Deposition of Josh Sullins, p. 84.

[15] Deposition of Curtis Kennedy, p. 81.

a spotter, and McKinney could not be an acceptable spotter even if he were asked to act in that role.

Kennedy stated that when he began to lift the load, the trailer shifted and caused the bundles on the other side of the trailer to fall off.[16] This statement must be addressed, as it directly relates to possible causation of the accident. During my inspection of the trailer, I found no significant problems with the trailer, and no suspension issues that would create such a condition. The trailer is manufactured by Big Tex, a well-known trailer manufacturing company. This particular style of trailer actually incorporates what is known as a Torque Tube which provides torsional strength to prevent the frame of the trailer from twisting or "racking" as it is often referred. A photograph of the underside of the trailer frame including the torque tube is shown in Figure 13.

[16] Deposition of Curtis Kennedy, pp. 66, 134.

Figure 13: Underside of Trailer Frame with Torque Tube

Kennedy's observation is most accurately explained by his own earlier description of his actions in unloading the trailer. At the time the bundles fell, Kennedy was attempting to lift all three bundles of panels that were on the right side of the trailer.[17] According to the Bill of Lading for the shipment, that would mean that Kennedy was lifting over 6,000 pounds up off of

[17] Deposition of Curtis Kennedy, p. 54.

the right side of the trailer in a single lift, with over 6,600 pounds remaining on the left side of the trailer.[18] When lifting that amount of weight off of the trailer, the suspension of the trailer would rise accordingly. This is one reason that the manufacturer's procedures for unloading warn the operator to lift one bundle at a time.[19]

Another procedure that Kennedy failed to follow was the use of backing blocks or other appropriate means to prevent excessive engagement of the forks. Kennedy acknowledged that he did not use any type of blocks or other means to prevent over-engagement as was recommended.[20] The purpose of preventing over-engagement of the forks includes preventing the forks from engaging an adjacent load. Such over-engagement can cause damage to adjacent materials, or the inadvertent lifting of the adjacent materials. The bundles of material that Mr. Kennedy was attempting to unload at the time of the accident were approximately 38 inches wide. The forks on the subject forklift were 72 inches long, which would allow for such over-engagement. When questioned about the length of the forks, Mr. Kennedy stated that he believed them to be 5 feet long.[21] Kennedy also acknowledged that he did not make sure the forks had not over-engaged underneath the far bundles on the driver side and that there is no reason that he could not have done so.[22]

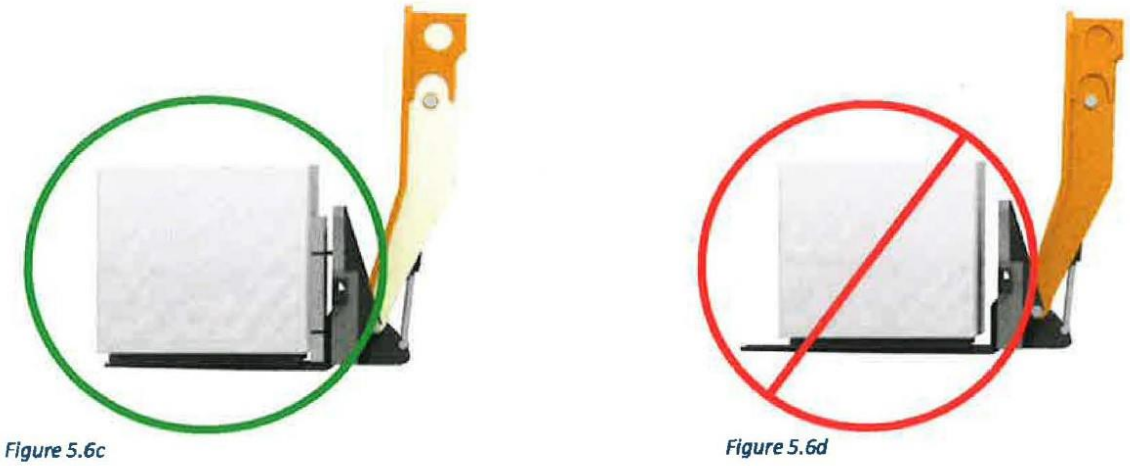

Figure 14: Illustration of Fork Over-Engagement (NUCOR)

[18] Straight Bill of Lading #365383, Metl Span.
[19] Nucor 000033.
[20] Deposition of Curtis Kennedy, pp. 143-146.
[21] Deposition of Curtis Kennedy, p. 59.
[22] Deposition of Curtis Kennedy, pp. 88-90.

Without the use of backing blocks or a spotter to verify fork position, there was nothing to prevent Kennedy from over-engaging the intended load and reaching his forks under the adjacent panels. Had appropriate backing blocks been used, the possibility of over-engaging the load would have been prevented. Kennedy testified that he did not have any backing blocks readily available at the job site.[23]

In reviewing photos of the bundles that rolled off the trailer striking McKinney and causing fatal injuries, markings consistent with such over-engagement are present on the bottom of the bundle of panels shown in Figures 15 and 16. These marks are consistent with the shape of the end of the forks on the subject forklift. When asked about these marks, Kennedy indicated that they appeared to be dirt.[24] Josh Sullins acknowledged the marks but claims that he discounted the concept of fork over-engagement because he didn't see where there was any damage as the plastic was not ripped.[25]

Figure 15: Marks on Bottom of Bundle

[23] Deposition of Curtis Kennedy, p. 90.
[24] Deposition of Curtis Kennedy, p. 105.
[25] Deposition of Josh Sullins, pp.67-69.

A closer view of these marks exhibit tearing or ripping of the plastic at these marks, consistent with fork over-engagement, where the fork tip likely pierced the plastic wrapping. An enlargement of this photograph area is shown in Figure 17 below. If Kennedy did over-engage the first set of panels, and partially engage the second stack, then the act of lifting the forks would both lift the weight of the near (passenger side) stack, and tip the far (driver side) stack on the far side of the trailer causing them to roll off of the trailer.

It is my opinion within a reasonable degree of engineering probability that Kennedy did over-engage the forks underneath the far (driver side) stacks and caused the far (driver side) bundles to fall off the trailer when he attempted to lift the bundles.

Figure 16: Mark on Bottom of Bundle

Figure 17: Enlarged View of Mark on Bottom of Bundle

Figure 18: Photograph of the Fork from Forklift Inspection

Figure 18 shows the shape of the JLG telehandler fork tips and is consistent with the marks shown in Figure 17. It is my understanding that Jenkins & Stiles destroyed the wrapping shortly after this event, and I was not provided the opportunity to inspect it or the building materials.

When Kennedy attempted to offload the cargo from the trailer, Jenkins & Stiles did not have an employee acting a s spotter for Kennedy.[26] Both Kennedy and Sullins claim that they relied upon McKinney to act as a spotter, although there was no clear communication of this to McKinney.[27] Nor does Kennedy remember the words he used to communicate to McKinney that he was expected to act as the spotter, nor does he remember how McKinney communicated to him that he understood that he was to act as the spotter.[28] Kennedy believes that it could have been "body language" that was used to communicate between them.[29] When asked, Mr. Kennedy testified that these was no reason that Jenkins & Stiles could not have had a spotter to assist Mr. Kennedy with this lift.[30] Had Jenkins & Stiles used a spotter to assist in the unloading, McKinney likely would have been confirmed by the spotter to be in a safe area prior to the lift, and ensured that the load was properly engaged and not over-engaged under the far (driver side) bundles, and the bundles would not have fallen onto McKinney.

In addition to the previously cited sections of OSHA which specifically address forklift training, OSHA also provides information regarding prevention of occupational injury in the trucking industry. Relevant portions specific to their responsibilities are as follows:

> *OSHA regulations govern the safety and health of the workers and the responsibilities of employers to ensure their safety at the warehouse, dock, construction site, and in other places truckers go to deliver and pick up loads throughout the company. While OSHA does not regulate self-employed truckers, it does regulate workplaces to which the truckers deliver goods and the workers which receive those goods.*

[26] Deposition of Curtis Kennedy, p. 74.
[27] Deposition of Curtis Kennedy, pp.79-80; Deposition of Josh Sullins, pp. 83-84.
[28] Deposition of Curtis Kennedy, pp.129-131.
[29] Deposition of Curtis Kennedy, pp.129-131.
[30] Deposition of Curtis Kennedy, p. 76; Deposition of Josh Sullins, p..

Standards

While traveling on public highways, the Department of Transportation (DOT) has jurisdiction. However, while loading and unloading trucks, OSHA regulations govern the safety and health of workers and the responsibilities of employers to ensure their safety at the warehouse, at the dock, at the rig, at the construction site, at the airport terminal and in all places truckers go to deliver and pick up loads.

In the absence of specific regulations, OSHA may invoke Section 5(a)(1) of the OSH Act of 1970, often referred to as the "General Duty Clause", which is stated below:

Section 5 – Duties

(a) Each employer –

1) *shall furnish to each of his employees, employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;*
2) *shall comply with occupational safety and health standards promulgated under this Act.*

Additional verbiage from OSHA's website regarding the OSH Act of 1970 includes:

You have the right to a safe workplace. The Occupational Safety and Health act of 1970 (OSH Act) was passed to prevent workers from being killed or seriously harmed at work. The law requires employers to provide their employees with working conditions that are free from known dangers. The OSH Act created the Occupational Safety and Health Administration (OSHA), which sets and enforces protective workplace safety and health standards.

Worker's Rights Under the OSH Act

The OSH Act gives workers the right to safe and healthful working conditions. It is the duty of employers to provide workplaces that are free of known dangers that could harm their employees.

Employers have a strict responsibility to keep workers from becoming injured or killed, which include the following:

Employer Responsibilities

Under the OSH law, employers have a responsibility to provide a safe workplace. This is a short summary of key employer responsibilities:

- *Provide a workplace free from serious recognized hazards and comply with standards, rules and regulations issued under the OSH Act.*
- *Examine workplace conditions and make sure they conform to applicable OSHA standards.*
- *Make sure employees have and use safe tools and equipment and properly maintain this equipment.*
- *Establish or update operating procedures and communicate them so that employees follow safety and health requirements.*
- *Employers must provide safety training in a language and vocabulary workers can understand.*

The OSHA standards and verbiage are measures of reasonable care consistent with industry standards applicable to Jenkins & Stiles, specifically loading and unloading trailers. Jenkins & Stiles had a responsibility to provide safe premises for business invitees, which include independent contractors on site, as well as to establish operating procedures so that employees follow safety and health requirements. This in turn, protects outside personnel who have reason to be on the premises as well.

It is critical that employers, such as Jenkins & Stiles, implement and enforce the proper operating instructions, training and methods for loading and unloading trailers similar to that operated by McKinney. Jenkins & Stiles allowed contract truck drivers to be in the hazard zone during the unloading process. In fact, Jenkins & Stiles claims to have relied upon contract truck drivers in directing their own employees in the unloading process, even though they had no knowledge or evidence of the skills or training of the drivers. This methodology was improper and unsafe, and created a known hazard of personnel being out of sight in a potential hazard area during the unloading process.

Employers should never allow outside personnel, including contractors, to instruct or direct their employees in work activities while at their facility. Instead, Jenkins & Stiles employees should have ensured that Mr. McKinney stood to the side and away the trailer, out of harm's way, during the unloading process.

The materials that McKinney was delivering to the job site were being unloaded and set in a laydown area for later use. The contractor that was to be installing the panels was not on site the day of the accident, and the panels were not scheduled for installation for another two to three weeks.[31] The delivery of the panels had been coordinated with Jenkins & Stiles personnel, including the delay that McKinney had experienced the prior day.[32] This coordination was sufficient to allow Jenkins & Stiles adequate time to be prepared for the delivery and have the necessary personnel on-site. Kennedy, as the job site superintendent, had the authority to hire personnel and to rent and use equipment.

Kennedy testified repeatedly that he had extensive experience operating forklifts such as the subject unit that he was operating the day of the accident. He was certified to operate the subject forklift by Ms. Sandy Redmond ("Redmond"), although she had not personally provided the site-specific training related to the unloading of flatbed trailers.[33] This training and experience alone do not ensure safe operations. When asked in her deposition, Redmond acknowledges that OSHA requires site specific training.[34] Redmond also stated that her training of Kennedy did not include site-specific training for the type of unloading of flatbed trailers, and that Jenkins & Stiles told her that they would provide the site specific to Kennedy.[35] Redmond also stated that Bart Jenkins had provided the site specific training for Kennedy.[36] However, Redmond stated that she did not know if Mr. Jenkins was certified as either an operator or trainer for forklifts.[37] Bart Jenkins denies that any site specific training was provided to Kennedy.[38]

The J.J. Keller Training program utilized by Redmond addresses this with the following:

9. Conclusion

> *Whether you operate a forklift every day-or just once in a while-it's critical that you have the necessary training, and are armed with an understanding of the specific equipment that you intend to use and how to operate it safely.*

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[31] Deposition of Curtis Kennedy, pp. 17 – 19.
[32] Deposition of Curtis Kennedy, p. 27.
[33] Deposition of Sandy Redmond, pp.51-52; TOSHA report, p. 67.
[34] Deposition of Sandy Redmond, p.51.
[35] Deposition of Sandy Redmond, pp.52-53.
[36] Deposition of Sandy Redmond, p.53.
[37] Deposition of Sandy Redmond, p.53.
[38] Deposition of Bart Jenkins, p.22.

> *After a while, especially if you're moving pretty much the same loads day after day, it can become easy to take things for granted ... to become complacent about your responsibilities as a forklift operator.*
>
> *Don't let this happen to you. Remember that rough terrain forklifts are among the most useful and the potentially most hazardous pieces of equipment on the jobsite.*
>
> *Stay sharp, know your equipment and know your load. If you do, you'll be able to keep your forklift stable, handle the toughest loads, and keep yourself and your co-workers safe.*[39]

There are many hazards associated with the operation of rough terrain forklifts. Recognition of those hazards and how to safely address them are key principles in the requirement for operator training. As a trained operator, one is in a position of superior knowledge to protect themselves and those around them. A key principle in the training of forklift operators is that they are responsible for the safety of themselves and pedestrians that may be in their work area. Operators cannot rely upon others that may not have the training and knowledge of these hazards and how to safely address them. Safety is the operator's responsibility.

[39] Forklift Workshop for Construction, Trainer's Guide, J.J. Keller & Associates, p. 16.

Engineering Opinions

1. It is my opinion that Kennedy's choice to unload the trailer while McKinney was physically located on the opposite (driver) side of the truck and trailer, after Kennedy had instructed him to finish getting his straps out of the way, directly contributed to cause the bundles to fall onto McKinney. The load, trailer (with gooseneck), truck and forklift sufficiently impeded Mr. Kennedy's field of view such that the use of a spotter was required to ensure that the lift could be performed safely, which rendered the unloading process unreasonably dangerous and contributed to the situation that led to Mr. McKinney's death. In addition to the photographs that have been referenced and utilized in this report, I intend to demonstrate at trial or by video the view that Kennedy would have had on approach using the actual truck and trailer, reconstructed bundles, and an exemplar forklift.
2. It is my opinion that Jenkins & Stiles should have designated a safe area for McKinney, clearly communicated this to him, and confirmed that he was in the safe area prior to Kennedy attempting to unload the bundles from the trailer. The failure of Jenkins & Stiles to utilize properly trained spotters during the unloading of Mr. McKinney's trailer allowed Mr. McKinney to be in the hazard zone during the attempted lift which rendered the unloading process unreasonably dangerous and directly contributed to the circumstances that caused this accident.
3. It is my opinion that the failure of Jenkins & Stiles to use backing blocks or other appropriate measures to prevent over-engagement of the forks during the attempted lift rendered the unloading process unreasonably dangerous and directly contributed to the circumstances that caused this accident.
4. It is my opinion that the failure of Jenkins & Stiles to follow the manufacturer's recommended procedures, including lifting one bundle at a time, rendered the unloading process unreasonably dangerous and directly contributed to the circumstances that caused this accident.
5. It is my opinion that the failure of Jenkins & Stiles to prevent truck drivers such as Mr. McKinney from being in the hazard zone during the unloading process rendered the unloading process unreasonably dangerous and directly contributed to the circumstances that caused this accident.

6. It is my opinion that the subject trailer was of a style typical of those used for the transportation of construction materials such as the subject insulated metal panels. There was nothing about its configuration that made it inappropriate for use in this application or which caused the accident.
7. As of the date of this Preliminary Report discovery has not yet been completed, and I reserve the right to amend and/or supplement this report and may offer opinions to rebut any testimony offered by defendant's experts.

Notes

These opinions are given with a reasonable degree of engineering certainty based on evidence that has been examined up to this time. They are therefore, subject to change or modification with the introduction of new evidence.

Robert H. Bullen Jr.

Robert H. Bullen Jr., P.E., J.D.